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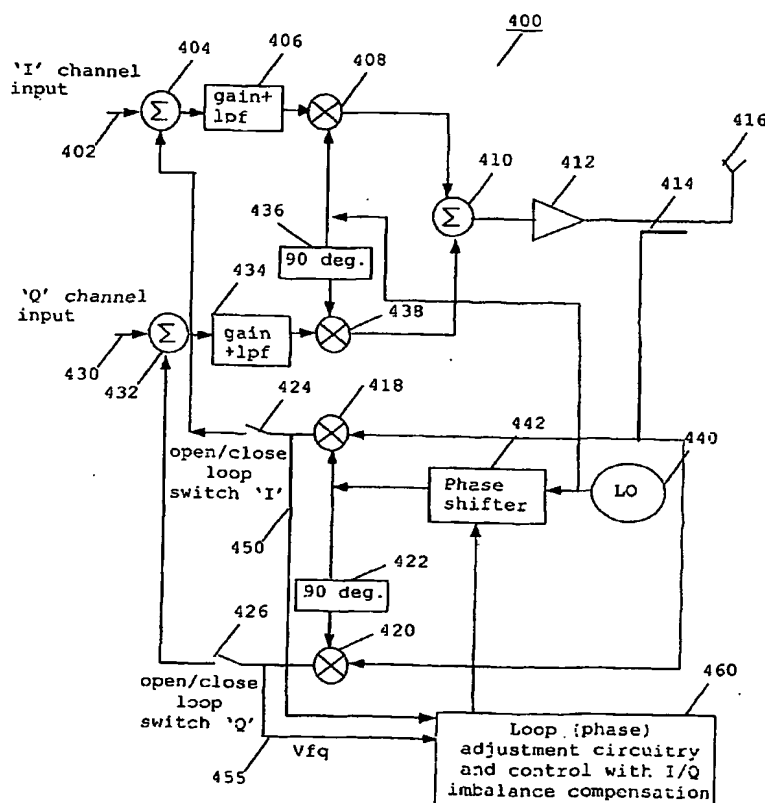
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(54) Title: **METHOD AND APPARATUS FOR LINEARIZATION IN A QUADRATURE TRANSMITTER**



(57) Abstract: A wireless communication unit (300) comprises a linearised transmitter (325) having a forward path, a power amplifier (324) and a feedback loop, operably coupled to the power amplifier (324) and the forward path. The feedback loop comprises a loop adjustment function (442), and the forward path and feedback loop comprise quadrature circuits. A processor (322) applies a first training signal to a first quadrature circuit loop for routing through the forward path, power amplifier and feedback path to determine at least one first parameter setting of the loop adjustment function (442). The processor (322) also applies a second training signal to a second quadrature circuit loop to determine at least a second parameter setting of the loop adjustment function (442). A linearised transmitter integrated circuit and method of training are also described. In this manner, by provision of a first training signal applied to a first quadrature (I) circuit loop and a second training signal applied to a second quadrature (Q) circuit any loop imbalance between the digital 'I' and 'Q' paths around the feedback loop can be compensated for.



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